

## WHAT IS CLAIMED IS:

## 1. A biological fluid filter comprising:

at least one first porous leukocyte depletion filter element and at least one second porous leukocyte depletion filter element, the first and second filter elements each comprising a plurality of layers of fibrous media;

the first porous leukocyte depletion filter element having a different basis weight than the second porous leukocyte depletion filter element, each porous leukocyte depletion filter element having a basis weight of about 42 g/ft<sup>2</sup> (about 452 g/m<sup>2</sup>) or less;

wherein at least one porous leukocyte depletion element has a P8 value of at least about 14.5 inches (about 36.8 cm) of water.

## 2. A biological fluid filter comprising:

at least one first porous leukocyte depletion filter element and at least one second porous leukocyte depletion filter element, the first and second filter elements each comprising a plurality of layers of fibrous media;

the first filter element having a different basis weight and a higher P8 value than the second filter element;

at least one element having a P8 value of at least about 14.5 inches (about 36.8 cm) of water.

3. The filter of claim 2, wherein the first porous filter element has a P8 value of at least about 15 inches (about 38.1 cm) of water, and the second porous filter element has a P8 value of about 13.5 inches (about 34.3 cm) of water or less.

4. The filter of claim 2 or 3, wherein the first and second porous leukocyte depletion filter elements each have a critical wetting surface tension of at least about 75 dynes/cm (0.75 erg/mm<sup>2</sup>).

## 5. A biological fluid filter comprising:

at least one porous leukocyte depletion filter element comprising a plurality of layers of fibrous porous media, the element having a P8 of at least about 14.5 inches (about 36.8 cm) of water.

6. The filter of claim 5, wherein the leukocyte depletion filter element has a pore diameter in the range of from about 2 micrometers to about 6 micrometers.
7. The filter of claim 5 or 6, wherein the leukocyte depletion filter element has a P8 value of at least about 15 inches (about 38.1 cm) of water.
8. The filter of claim 7, wherein the leukocyte depletion filter element has a P8 in the range of from about 15 to about 18 inches (about 38.1 to about 45.7 cm) of water, and a basis weight in the range of from about 15 to about 30 g/ft<sup>2</sup> (about 161 to about 323 g/m<sup>2</sup>).
9. The filter of claim 8, wherein the leukocyte depletion filter element has a critical wetting surface tension of at least about 75 dynes/cm (0.75 erg/mm<sup>2</sup>).
10. The filter of any one of claims 1, 2, and 5, wherein each of the plurality of layers of fibrous media has an upstream surface and a downstream surface, and the filter includes adjacent layers having contacting surfaces wherein the contacting surfaces of the adjacent layers are not thermally or adhesively bound to each other.
11. The filter of claim 10, wherein each leukocyte depletion element has a critical wetting surface tension of at least about 85 dynes/cm (0.85 erg/mm<sup>2</sup>).
12. A method for processing biological fluid comprising:  
passing a leukocyte-containing biological fluid through a biological fluid filter including at least one porous leukocyte depletion filter element comprising a plurality of layers of fibrous media, the element having a P8 of at least about 14.5 inches (about 36.8 cm) of water, to deplete leukocytes from the biological fluid.
13. The method of claim 12, wherein the leukocyte depletion filter element has a P8 of at least about 15 inches of water.
14. The method of claim 12 or 13, wherein the leukocyte-containing biological fluid is filtered within about 24 hours of collection.
15. The method of claim 12 or 13, wherein the biological fluid is filtered while maintaining a closed system.

16. A method for processing a biological fluid comprising:  
passing a leukocyte-containing biological fluid through the filter of any one of claims 1-11 to provide a leukocyte-depleted biological fluid.
17. The method of claim 16, wherein the leukocyte-depleted biological fluid contains less than  $5 \times 10^6$  residual leukocytes per unit of biological fluid.
18. A biological fluid filter device comprising:  
a housing having an inlet and an outlet and defining a first fluid flow path and a second fluid flow path between the inlet and the outlet; and,  
two biological fluid filters of any one of claims 1, 2, 5, and 8, disposed in the housing, the first biological fluid filter across the first fluid flow path, and the second biological fluid filter across the second fluid flow path.